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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,675

03/20/2006

Tsuyoshi Kanda

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JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER

LEE, GILBERT Y

ART UNIT

PAPER NUMBER

3673

MAIL DATE

DELIVERY MODE

05/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,675

Applicant(s)

KANDA, TSUYOSHI

Examiner

Gilbert Y. Lee

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the side surface of the projection" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the side surface of the projection" in lines 11 and

12. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 rejected under 35 U.S.C. 102(b) as being anticipated by Hadaway (US Patent No. 3,923,315).

Regarding claim 1, the Hadaway reference discloses a sealing apparatus (e.g. Fig. 1) that seals an annular gap (e.g. gap between housing and shaft) between a shaft (e.g. 5) and a housing (e.g. housing that would be in contact with element 6) that are relatively rotated, the sealing apparatus being provided with a seal lip (e.g. 4) that extends toward the sealing fluid side (Fig. 1) to be in sliding contact with a shaft surface (Fig. 2), characterized by being provided with a projection (e.g. 7 and 8) disposed at the root of the seal lip, where the distance between the surface of the projection and the shaft center is set to have a dimension equal to or slightly larger than the radius of the shaft (Fig. 2), and at least a part of the side surface of the projection exhibits a suction function of returning the fluid that has leaked from the seal lip tip end to the sealing fluid side when the shaft and the housing are relatively rotated (Col. 2, Line 66 - Col. 3, Line 2).

Regarding claim 3, the Hadaway reference discloses that one of a pair of the side surfaces of the projection exhibits the suction function when the shaft and the housing are relatively rotated in a first direction, and the other one of the pair of the side surfaces exhibits the suction function when the shaft and the housing are relatively rotated in a second direction opposite to the first direction (Col. 2, Line 66 - Col. 3, Line 2).

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4. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Sink (US Patent No. 5,511,886).

Regarding claim 2, the Sink reference discloses

a sealing apparatus (Fig. 6) that seals an annular gap (e.g. gap between 14 and 42) between a shaft (e.g. 42) and a housing (e.g. 14) that are relatively rotated, the sealing apparatus being provided with a seal lip (72) that extends toward the sealing fluid side to be in sliding contact with a shaft surface (Fig. 6), characterized in that

an annular portion (70) is provided that projects out more to the sealing fluid side than the seal lip (Fig. 6), and

the annular portion is provided with a projection (e.g. 74), where the distance between the surface of the projection and the shaft center is set to have a dimension equal to or slightly larger than the radius of the shaft (e.g. shown by d in Fig. 6), and at least a part of the side surface of the projection exhibits a suction function of returning the fluid that comes in to the inner circumference side of the annular portion to the sealing fluid side When the shaft and the housing are relatively rotated (Col. 4, Lines 46-67).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gilbert Y. Lee whose telephone number is 571-272-5894. The examiner can normally be reached on 8:00 - 4:30, M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on (571)272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GL
May 13, 2007

A handwritten signature in black ink, appearing to read 'Patricia Engle', with a stylized flourish at the end.

Patricia Engle
Supervisory Examiner
Tech. Center 3600